

REMARKS

This submission is in response to the Official Action dated May 21, 2004. Reconsideration of the above identified application, in view of the above amendments and the following remarks, is respectfully requested.

I. Status of the Claims

Claims 1-4 and 11-14 have been amended.
No new matter is added.
Claims 1-20 are presently pending.
Claims 1, 2, 5, 8-12, 15, and 18-20 stand rejected.
Claims 3, 4, 6, 7, 13, 14, 16, and 17 are objected to.

II. Acknowledgement of Allowable Subject Matter

Applicant thanks the Examiner for the acknowledgement of allowable subject matter in claims 3, 4, 6, 7, 13, 14, 16, and 17. Claims 3, 4, 6, 7, 13, 14, 16, and 17 have been objected to as being dependent upon a rejected base claim.

III. Supplemental Information Disclosure Statement

Applicants submit, concurrently with this Amendment, a Supplemental Information Disclosure Statement that complies with 37 C.F.R. § 1.98(a)(2) and copies of the cited references as attachments thereto. Consideration of these references and acknowledgment by initialing Form SB/08 is respectfully requested.

IV. 35 U.S.C. § 102 Rejection

Claims 1 and 11 have been rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 4,698,644 to Drago et al. (hereinafter "Drago"). Applicants respectfully traverse these rejections, and reconsideration is respectfully requested.

The subject invention discloses a micro-dispenser including a base and a high-density array of tube assemblies. The base, having a plurality of holes, is electrically connected to a controller that controls the micro-dispenser. The tube assemblies, pre-filled with predetermined fluids, are detachably disposed in the holes and separately connected to the base. The tube assemblies are replaceable. Several kinds of dispensers can be used in the subject invention, for example, an ink-jet dispenser.

Claims 1 and 11 disclose "an array of tube assemblies... detachably disposed in the holes [in the base]." Drago discloses a drop-on-demand ink jet print head comprising a tube housing member 24 and a plurality of piezoelectric tubes 26. Drago states, in column 3, lines 18-19, that the piezoelectric tubes 26 have a close fit in the openings in the housing member 24, but Drago does not disclose that the piezoelectric tubes 26 are detachably disposed on the housing member 24. In the present invention, the array of tube assemblies is detachably disposed in the holes, as stated in claims 1 and 11. Thus, Drago does not disclose all of the elements of the claimed invention.

Applicants respectfully submit that for at least the aforementioned reason, claims 1 and 11 of the present invention are patentable over the prior art. Based on the foregoing, the rejections of claims 1 and 11 under 35 U.S.C. § 102 should be withdrawn, and reconsideration is respectfully requested.

V. 35 U.S.C. § 103(a) Rejections

Claims 2 and 12 are rejected under 35 U.S.C. § 103(a) as unpatentable over Drago in view of U.S. Patent No. 5,525,304 to Matsson et al. (hereinafter "Matsson"). The Examiner states that Drago does not disclose that a base comprising at least one recess formed adjacent to each hole and that each of the tube assemblies is provided with at least one protrusion corresponding to the recess for engaging with the base. The Examiner states that Matsson discloses these claimed features. Applicants respectfully traverse these rejections, and reconsideration is respectfully requested.

Claims 2 and 12 are dependant on claims 1 and 11, which are patentable over Drago as described above regarding the rejection under 35 U.S.C. § 102, and therefore, claims 2 and 12 are also patentable for at least the same reasons. Drago does not disclose that the piezoelectric tubes 26 are detachably disposed on the housing member 24, as set forth in the present invention. Furthermore, Matsson, like Drago, also does not disclose tube assemblies that are detachably disposed in holes in a base of a micro-dispenser. Matsson's vials 70 are not disposed in holes in Matsson's base 20. Thus, Drago and Matsson fail to disclose all of the elements of the claimed invention, and a *prima facie* case of obviousness has not been established.

Claims 5 and 15 are rejected under 35 U.S.C. § 103(a) as unpatentable over Drago in view of U.S. Patent No. 4,472,357 to Levy et al. (hereinafter "Levy"). The Examiner states that Drago does not disclose that the tube assemblies are marked with a code indicating the type of fluid contained, but that Levy discloses these claimed features of the present invention. Applicants respectfully traverse these rejections, and reconsideration is respectfully requested.

Claims 5 and 15 are dependant on claims 1 and 11, which are patentable over Drago as described above regarding the rejection under 35 U.S.C. § 102, and therefore, claims 5 and 15 are also patentable for at least the same reasons. Drago does not disclose that the piezoelectric tubes 26 are detachably disposed on the housing member 24, as set forth in the present invention. Furthermore, Levy like Drago, also does not disclose tube assemblies that are detachably disposed in holes in a base of a micro-dispenser. Levy's cuvettes 10 are joined together with breakable links, but are not disposed in a base having a plurality of holes. Thus, Drago and Levy fail to disclose all of the elements of the claimed invention, and a *prima facie* case of obviousness has not been established.

Claims 8-10 and 18-20 are rejected under 35 U.S.C. 103(a) as unpatentable over Drago. The Examiner states that Drago does not disclose a particular type of ink-jet printer, but that it would have been obvious to one of ordinary skill in the art at the time to employ Drago's system for a pulse pressure, bubble, or slit ink-jet printer, as set forth in the claimed invention. Applicants respectfully traverse these rejections, and reconsideration is respectfully requested.

